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US FISH AND WILDLIFE SERVICE  
COLUMBIA, CALIFORNIA  
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Mr. Halsted, I am writing to you as a citizen of Arcata, and as a watershed and fisheries scientist. I have reviewed several drafts of the PALCO HCP/SYP and find even the latest version to be inadequate to provide protection of endangered species on PALCO lands such as the marbled murrelet and spotted owl, and other species that may use the environments transitionally particularly coho salmon and steelhead trout. The streams, riparian zones and floodplains that drain PALCO property are essential habitat for numerous species that under the current management will be extinct if PALCO is allowed an incidental take permit. These gene pool resources are irreplaceable resources which your agency and the National Marine Service are responsible for protecting under the Endangered Species Act. Please do your job and deny an incidental take permit.

I have been working with anadromous salmonids since 1991 as an undergraduate at Humboldt State University and as an employee of the Institute for River Ecosystems under the direction of Dr. Bill Trush and Dr. Terry Roelofs. In 1995 I was employed by the Trinity County Resource Conservation District monitoring erosion in the Grass Valley Creek watershed. This watershed was severely damaged due to tractor logging techniques prior to the 1980's, even then the last harvests by Sierra Pacific left a legacy of erosion, that still today and millions of taxpayer dollars later, are still in need of maintenance and restoration. Since 1996 I worked as an employee and as an independent contractor of William M. Kier Associates, a natural resources policy and management consulting firm. I have worked with and am familiar with a substantial portion of the historical and current literature and data on salmon, steelhead, and coastal cutthroat trout within their current and historical range in the Sacramento, Smith, Klamath, Trinity, Eel, Mad, Elk, Mattole rivers and Humboldt Bay tributaries. I have lived in this area since 1989 and have worked in the Freshwater watershed as early as 1991. I have seen firsthand how many of the streams draining PALCO land since the MAXXAM takeover have been degraded.

I personally scanned in many of the photos that are in the KRIS COHO CD's that have been distributed by Kier Associates. The photographic evidence alone in many situations shows how directly the stream environments have changed over time. The PALCO data has been massaged by so many spin doctors it is hard to recognize it from any original data that it comes from. The conclusions that the HCP/SYP comes to with regard to harvest levels and preservation of endangered species are inadequate to preserve much less restore coho salmon populations to viable levels. The conditions on PALCO streams and the harvesting levels that have caused their deteriorated condition are deplorable, only drastic measures are going protect aquatic biodiversity in these watersheds. The public trust is in your hands with decisions regarding this and other HCP's in this bioregion.

This summer I was employed by William M. Kier Associates, under contract with the National Marine Fisheries Service to survey Mattole, and Smith River tributaries for juvenile coho salmon and steelhead. In preparation for this we had reviewed all available information regarding past studies identifying coho salmon in watershed in the Northern (ESU).

In the PALCO HCP's first draft there is a reference to juvenile coho salmon in Rattlesnake Creek. "Juvenile coho surveys found coho in Rattlesnake Creek (CDFG). This WAA did not receive smolt or fry from PALCO's hatchery." (Pg. 39 PALCO Sustained Yield Plan 12/12/96) Also on the next page, "A single juvenile chinook salmon was collected from Rattlesnake Creek in September of 1991 (CDFG, 1995). "The lack of juvenile or carcass surveys makes it difficult to determine the significance of the WAA for chinook spawning, but the collection of only one juvenile suggests that chinook abundance

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in this WAA is low. This WAA did not receive smolt or fry from PALCO's hatchery." (Pg. 40 PALCO Sustained Yield Plan 12/12/96)

My survey partner, Trevor Lucas, a graduate Fisheries Biologist from Humboldt State University and I both identified coho salmon and steelhead trout in Rattlesnake Creek on July 21, 1998. We also, using visual observation techniques with a mask and snorkel, observed coho salmon and steelhead trout in Oil Creek, and the Upper North Fork Mattole River. On July 25, 1998 we surveyed Sulphur Creek, and the East Branch North Fork Mattole River, which also contained coho salmon and steelhead trout. I do not believe that PALCO has in good faith been surveying or reporting correctly the composition of species on its property. Rather I think that they have been intentionally misleading both the California Department of Fish and Game and the National Marine Fisheries Service by the fact that they infer in their HCP/SYP that these areas are only populated by steelhead trout. When both PALCO biologists and CDFG staff (Scott Downie) went to re-survey some of these areas they claim that they cannot locate any coho. I am disappointed by PALCO and CDFG's inability to adequately sample PALCO streams so that by this time they would have some substantial data to discuss the distribution and abundance of species on their property. I am disappointed that they rely specifically on the lack of data to surmise that there are only steelhead in all of their streams in the Mattole-Bear River WAA's. I am disappointed by Scott Downie's support of the company's opinion that there are only steelhead in these drainages, when he has little or no data to back up his assertions. I encourage further analysis of all PALCO property where there are greater than 3 year data gaps before management decisions are made.

My partner and I also have located coho salmon juveniles in Westlund, Gilham, Dry, and Middle creeks also in the Mattole watershed. It is my understanding that PALCO will acquire or is attempting to acquire the late seral stage trees upslope of these creeks. I have testified in Federal court in October of this year regarding the findings in Sulphur Creek and the East Branch North Fork Mattole River. I listened to all of the testimony from Jeff Barrett Ph.D. from the company. He testified that there are no coho, nor has there been any coho in the last ten years in Sulphur Creek, the East Branch North Fork Mattole, Rattlesnake Creek, Oil Creek, or the Upper North Fork. Jeff Barrett is a liar, and is being paid by the company to say whatever he has to so that they may reach their management objectives. I am not looking forward to being called to in inevitable court cases on the presence of coho in Mattole river tributaries. I would much rather be testifying for the Federal government as it pushes for stronger regulation of a company that has no regard for the necessary habitat requirements for the species on its land. The FEMAT recommendations outlined in the PPAAP need to be implemented in order to adequately protect coho salmon under the Endangered Species Act.

In the Sulphur Creek case, the THP's had been approved by CDF before consultation with NMFS even though in the Proposed Federal Framework for the PALCO HCP item #7. states **"An interdisciplinary scientific team hired by Pacific Lumber will conduct the assessment, synthesis, and develop prescriptions. Pacific Lumber is to be a participant in all stages of the process. Pacific Lumber will consult with the permitting agencies concerning the interdisciplinary structure of the scientific team, team composition, and selection of the criteria. The agencies will have approval authority over the structure of the team selection criteria and the team members.**

**Pacific Lumber will consult with the permitting agencies concerning the contracts and work plans of the scientific team. And, the approval of the agencies must be obtained before work plans or contracts can be executed."** The company has violated the PPAAP in the Mattole and in Freshwater Creek, and in Grizzly Creek. The HCP cannot be passed because this company cannot be trusted to do the right thing. Giving them an incidental take permit in light of these and the other violations of the CA Forest Practice Act is a violation of your public trust responsibility to protect the resource under the Endangered Species Act. Please do your job

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and do not approve the current HCP/SYP until it is based on real aquatic conservation based biology (FEMAT). Thank you for this opportunity to comment, and please forgive any mistakes as this was rushed getting out. I was trying to wait for the court verdict to comment, but the deadline has run out. After debating the finer points of coho salmon juvenile life history patterns with Mr. Barrett under oath I am certain that he is neither qualified nor is he interested in maintaining coho habitat on the companies properties. His recommendations with regard to buffer strip widths, sediment supply loading in small creeks, and the connection between timber harvest and the quality of fish habitat left me with the impression that if the HCP goes through all we are going to have left in Humboldt County is degraded rainbow trout habitat. I trust that you and the USFWS and NMFS staff know that the streams and rivers of Northern California are capable of producing a far more diverse and healthy community of fishes than this. I also trust that you will make the right decision.

Sincerely, Jason L. Johnson

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TABLE 17  
STREAM HABITAT FOR COHO SALMON, CHINOOK SALMON,  
STEELHEAD, AND SEA-RUN CUTTHROAT TROUT  
(MILES)

FISH SPECIES/ AREA	HUMBOLDT BAY WAA	YAGER WAA	VAN DUZEN WAA	EEL WAA	BEAR- MATTOLE WAA	TOTAL
<b>Coho</b>						
PALCO	26.76	12.50	12.13	4.04	—	55.43
WAA	60.05	12.50	30.54	65.10	—	168.19
<b>Chinook</b>						
PALCO	25.26	23.94	16.46	8.81	—	74.47
WAA	53.67	24.22	40.96	82.40	—	201.25
<b>Steelhead</b>						
PALCO	28.27	36.32	17.93	32.39	13.33	128.24
WAA	59.15	38.38	44.66	122.41	48.38	312.98
<b>Cutthroat</b>						
PALCO	28.25	—	—	2.43	—	30.68
WAA	58.01	—	—	14.98	—	72.99

*a. Coho*

**Humboldt WAA.** CDFG carcass surveys produced 925 adult coho salmon in the North Fork of the Elk River (CDFG 1995). In addition, juvenile salmon were found in: Bridge Creek, McWhinney Creek, North Fork of the Elk River, and the South Branch of the North Fork of the Elk River (CDFG 1995). HSU spawning surveys indicated coho are present within the following tributaries of Freshwater Creek: Cloney Gulch, Falls Gulch, Graham Gulch, and the South Fork of Freshwater Creek (Brumback and Elfinwood 1988). Ongoing surveys by the Humboldt Fish Action Council have documented that coho adults use most accessible portions of the Freshwater Creek drainage (Tom Weseloh, Calif. Trout, pers. comm.). Coho supplementation has occurred in this WAA, where 174,462 coho have been planted since 1965.

**Van Duzen WAA.** Coho distribution in the Van Duzen WAA is somewhat limited in comparison with other WAAs. Carcass surveys indicate adult coho in Cummings and Hely creeks, while juvenile surveys place coho in Grizzly, Root, and Stevens creeks (CDFG 1995). This WAA has not received smolt or fry from PALCO's hatchery.

**Yager WAA.** Within the Yager WAA, coho spawning occurs in Lawrence Creek and several tributaries to Lawrence including Shaw Creek, Booths Run Creek, and Bell Creek. Some coho spawning is also thought to occur in the upper portion of the Yager drainage, particularly in the South and Middle forks. The CDFG's carcass surveys yielded 14 coho salmon, 5 (35%) of which were found in Lawrence Creek (CDFG 1995). Juvenile coho can be found throughout streams in the WAA, extending from the spawning areas noted above downstream to the junction with the Van Duzen River. Juvenile coho were collected in 1993-1994 from the following tributaries: Bell, Blanton, Booth's Run, Cooper Mill, Comer, Fish,

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Lawrence, Middle Fork of Yager, North Fork of Yager, South Fork of Yager, Strawberry, and Yager creeks (CDFG 1995). Coho salmon in this WAA are sustained by wild production; no hatchery coho salmon have been introduced.

Eel WAA. Adult coho salmon, as determined by carcass surveys, are distributed throughout the Eel WAA. Included in this distribution are: Bear Creek, Carson Creek, Chadd Creek, and Jordan Creek (CDFG 1995). In addition, juvenile coho were captured in Allen Creek, Arnold Creek, Atwell Creek, Balcom Creek, Dinner Creek, Greenlaw Creek, Kapple Creek, Kiler Creek, Larabee Creek, Monument Creek, Nanning Creek, Shively Creek, Stitz Creek, Thompson Creek, Twin Creek, and Weber Creek (CDFG 1995). The Eel WAA received 10,665 coho in 1983 from PALCO's hatchery.

Bear-Mattole WAA. Limited carcass surveys were conducted within the Bear-Mattole WAA. As a result, the only stream that was investigated within PALCO's property was the Bear River which did not contain coho carcasses (CDFG). Juvenile coho surveys found coho salmon in Rattlesnake Creek (CDFG). This WAA did not receive smolt or fry from PALCO's hatchery.

*b. Chinook*

Humboldt WAA. CDFG surveys revealed chinook utilization of the North Fork of the Elk River within this WAA (CDFG 1995). The survey found 130 (14 %) and 116 (13%) chinook carcasses in the North and South forks of the Elk River, respectively. In addition, HSU spawning surveys found 118 chinook in the Freshwater Creek Basin from 1987-1988\* (Brumback and Ellinwood 1988). Of the surveyed areas, the following tributaries contained chinook: Freshwater Creek, Cloney Gulch, and the South Fork of Freshwater Creek. Hatchery releases into the WAA have totaled 86,855 fish, with releases in five years since 1964.

Van Duzen WAA. CDFG carcass surveys in the Van Duzen WAA suggest that chinook were more abundant there than in other WAAs. Nine-hundred-nine chinook carcasses were found from 1987 to 1995 (CDFG 1995). Root Creek yielded 55% (533) of the adult chinook carcasses, while Hely Creek and Cummings Creek accounted for 16% (149) and 13% (114) of the carcasses, respectively. In addition, juvenile chinook were collected in Grizzly and Stevens Creeks (CDFG 1995). This WAA did not receive chinook from PALCO's hatchery.

Yager WAA. Within the Yager WAA, chinook spawning occurs in the mainstem of Yager and Lawrence creeks. The lower portion of Lawrence Creek, from its junction with Yager Creek and extending upstream to the confluence with Shaw Creek, appears to have the highest level of utilization by spawning chinook. CDFG carcass surveys yielded 927 chinook salmon in the Yager WAA from 1987 through 1995, 519 (56%) of which were found in Lawrence Creek (CDFG 1995). Carcass surveys conducted by the CDFG indicate adult chinook salmon spawn in the following tributaries: Blanton, Cooper Mill, Fish, Lawrence, Middle Fork of Yager, South Fork of Yager, Shaw, and Yager creeks (CDFG 1995). Releases of hatchery raised chinook have ranged from 2,636 to 85,500 fish/year. These releases have also varied in time, with releases occurring in only 6 of the last 14 years.

Eel WAA. CDFG carcass surveys indicate chinook salmon use the following tributaries in the Eel WAA: Bear Creek, Carson Creek, Chadd Creek, Jordan Creek, and Larabee Creek (CDFG 1995). Of the 132 chinook salmon observed from 1987 to 1995, 90 (68%) were found in Bear Creek and 26 (20%) were observed in Chadd Creek. Juvenile salmonid surveys conducted from 1990 through 1994 indicate the presence of chinook in the following streams within the Eel WAA: Allen Creek, Arnold Creek, Atwell Creek, Balcom Creek, Dinner Creek, Greenlaw Creek, Kapple Creek, Kiler Creek, Monument Creek, Nanning Creek, Shively Creek, Stitz Creek, Thompson Creek, Twin Creek, and Weber Creek (CDFG 1995). This WAA did not receive chinook from PALCO's hatchery.

Bear-Mattole WAA. No carcass data were collected in the Bear-Mattole WAA. A single juvenile chinook salmon was collected from Rattlesnake Creek in September of 1991 (CDFG 1995). The lack of juvenile or carcass surveys makes it difficult to determine the importance of this WAA for chinook spawning, but the collection of only a single juvenile suggests that chinook abundance in this WAA is low. This WAA did not receive chinook from PALCO's hatchery.

#### *c. Steelhead*

Steelhead trout are the most widely distributed anadromous salmonid on PALCO's ownership.

Humboldt WAA. Fifty-six adult steelhead were observed in the North Fork of the Elk River which resides in the Humboldt WAA (CDFG 1995). Both adult trapping and juvenile salmonid surveys indicate that steelhead are present in the Freshwater Creek Basin, including Cloney Gulch, Little Freshwater Creek, and Graham Gulch (Preston 1994; HFAC 1995).

Van Duzen WAA. Each of the streams on PALCO's ownership within the Van Duzen WAA that were surveyed by CDFG were found to contain steelhead. Cummings Creek, Grizzly Creek, Hely Creek, Root Creek, and Stevens Creek all contained steelhead juveniles and/or adults (CDFG 1995).

Yager WAA. Within the Yager WAA, steelhead spawning occurs in the mainstem of Yager and Lawrence Creeks, and in many tributaries to both these drainages. The upper portion of Lawrence Creek, from its junction with Booths Run Creek and extending upstream appears to have a high level of utilization by spawning steelhead. Past surveys by CDFG identified 32 steelhead carcasses, 6 (19%) of which were found in Lawrence Creek (CDFG 1995). Juvenile steelhead are also widely distributed, occurring in all stream sections from the spawning areas noted above downstream to the junction with the Van Duzen River. Juvenile steelhead were collected in 1993 and 1994 in Bell, Blanton, Booth's Run, Cooper Mill, Corner, Fish, Lawrence, Middle Fork of Yager, North Fork of Yager, South Fork of Yager, Strawberry, and Yager Creeks (CDFG 1995). Winzler and Kelly (1980) reported collecting steelhead juveniles from 11 of the 12 study sections they sampled in the Yager WAA, and from a 2,000-ft section of Booths Run Creek. Based on these collections, they concluded that the upper reaches of the Yager Creek drainage were an important nursery site for juvenile salmonids. Releases of hatchery raised steelhead have ranged from 3,427 to 30,000 fish/year, with releases occurring six times in the last fifteen years.

Eel WAA. Steelhead, as determined by carcass and juvenile surveys, are present in the following streams within the Eel WAA: Allen Creek, Arnold Creek, Atwell Creek, Balcom Creek, Bear Creek, Carson Creek, Chadd Creek, Dinner Creek, Greenlaw Creek, Jordan Creek, Kapple Creek, Kiler Creek, Larabee Creek, Monument Creek, Nanning Creek, Shively Creek, Stitz Creek, Thompson Creek, Twin Creek, and Weber Creek (CDFG 1995).

Bear-Mattole WAA. As with other species, data on fish presence and abundance in the Bear-Mattole WAA are limited. The existing data indicate that steelhead are present in Rattlesnake Creek and the Mattole River (CDFG 1995). *? When is it?*

d. *Sea-Run Cutthroat*

Long term monitoring studies in the Humboldt Bay WAA have documented the presence of searun cutthroat trout. It is not known if sea-run cutthroat trout are also present in the remaining WAAs as little is known about the distribution of this species on the north coast (T. Roelofs, Humboldt State Univ., pers. comm.). *Date?? Update.*

## 2. ALL ANADROMOUS SALMONIDS

Although data on juvenile abundance were not collected by CDFG for every perennially flowing stream on the ownership, it is likely that salmonids of some type occupy most or all such drainages during some time of the year. CDFG also has conducted redd counts in stream segments within PALCO's ownership boundaries (CDFG 1995). The total number of redds recorded in the five WAAs was 2,104. Collectively, these data demonstrate that spawning adults and juvenile salmonids are widely distributed across streams within PALCO's ownership. In addition, the large number of redds in the Yager and Humboldt WAAs suggest that these streams are particularly important for salmonid production. Further evidence of this importance is the observation of higher juvenile densities in Lawrence Creek and Shaw Creek than in any other surveyed stream. Similarly, the abundance of redds in Lawrence, Shaw, and Cooper Mill creeks in the Yager WAA was higher than in most other surveyed streams.

## 3. RESIDENT FISH SPECIES

Little is known about the specific abundance and distribution of the resident fish species. Roach and Sacramento suckers require, or at least tolerate, warm water conditions, such as those known to occur in portions of Yager Creek. As a consequence, these species, and roach in particular, are common in the lower reaches of Yager Creek that are subject to high summer water temperatures. Roach are also known to occur in the mainstem Eel River (Moyle 1976), which experiences high summer water temperatures.

## C. WATERSHED ASSESSMENT

The watershed assessment summarized below was conducted with the assistance of R2 Resource Consultants, a Seattle firm specializing in watershed assessments.

4. Entire watersheds (refer to #1) where Pacific Lumber owns all or portions of the land will be assessed. This will include a Level 1 assessment for all lands not owned by Pacific Lumber in the specified watersheds and a Level 2 assessment for lands owned by Pacific Lumber.
5. The assessment modules from the Washington State process will be used, in a modified format, for mass wasting, riparian function, fish habitat, stream channel assessment. The Pacific Watershed Associates (PWA) erosion analysis with additions for non-road related surface erosion may be used in place of the surface erosion module. Water quality "critical and key" questions may also be incorporated into the assessment.
  - The most current Washington State manual and modules will be used at the time of analysis as the basis for the Pacific Lumber process.
  - Key and critical questions will be customized to HCP covered species and Pacific Lumber's ownership.
  - The agencies will modify the methodology and modules to the specifics of the Pacific Lumber HCP.
  - Variations on the methodology and modules can be recommended by Pacific Lumber. Variations will be approved by the agencies.
6. Integration of the watershed analysis modules with the PWA erosion process still needs development.
7. The analysis must be performed by qualified individuals. An interdisciplinary scientific team hired by Pacific Lumber will conduct the assessment, synthesis, and develop prescriptions. Pacific Lumber is to be a participant in all stages of the process.

- Pacific Lumber will consult with the permitting agencies concerning the interdisciplinary structure of the scientific team, team composition, and selection criteria. The agencies will have approval authority over the structure of the team, selection criteria and the team members.
  - Pacific Lumber will consult with the permitting agencies concerning the contracts and work plans of the scientific team. And, the approval of the agencies must be obtained before work plans or contracts can be executed.
8. Federal and state agencies have the option to participate in the process at any stage.
9. The final determination to proceed with prescriptions, developed as a result of the watershed analysis, is retained by the permitting agencies.  
*45 day review period*
10. A peer review will be conducted on a subset of completed analyses and prescriptions. The timeframe and details are still undetermined.
11. Timelines for completion of the process according to the Washington State methodology are not required. However, timelines for completion of the various phases of the analysis for this HCP will be developed based on mutual agreement between the agencies and Pacific Lumber.



d) The State shall commit to a higher level of assessment (coho habitat and watershed condition) activity, review activity (land and water use), enforcement activity (habitat protection rules and regulations), and habitat monitoring activity of coho bearing watersheds in general, and especially in those watersheds given a "high priority" designation by the Science Panel (see 3 (d) above).<sup>1</sup>

e) Regulatory changes will be recommended and made based on the best available scientific information.<sup>2, 4</sup>

f) The Conservation Guidelines will include uniform protection measures (minimum standards equivalent to those of the FEMAT Aquatic Conservation Strategy) that will be initially applied to all watersheds but may be relaxed only on a watershed by watershed basis. Reducing restrictions and application of the reduced restrictions shall be conditioned on successful completion of a watershed plan approved by NMFS, ongoing implementation of the plan's protection and restoration actions in accordance with a plan timeline, and existence of monitoring information indicating a sustained trend of improvement in the condition of coho habitat.<sup>3</sup>

#### 5) WATERSHED PLANNING PROCESS

a) Watershed plan development shall be guided by a set of plan standards and must meet a minimum set of planning standards.

b) Provision must be made for adequate public comment on plans prior to review and approval by the State, and the decision must be appealable. The Program must provide for judicial review of a plan's compliance with ESA.<sup>3</sup>

c) The planning process will be designed to accommodate expansion of scope to deal with additional species listings.

#### 6) PROGRAM DEVELOPMENT PROCESS

a) The State will create and support a collective, inclusive stakeholder for the purpose of developing consensus agreement on Program proposals and disseminating information to the public. The stakeholder forum process shall be either a FACA chartered committee or a functional equivalent (see "ground rules" referred to in 6(b) below).<sup>1, 2, 3, 4</sup>

b) The State shall develop and abide by ground rules that insure the process is collective, inclusive, and equitable.<sup>1, 2, 3, 4</sup>

c) The State shall establish benchmarks that will be used to measure Program development and implementation progress and State performance. Timelines will be established for all proposed actions.

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<sup>1</sup> Hilda Diaz-Soltero 3/22/96 memorandum to the Resources Agency describing NMFS expectations for a State recovery program.

<sup>2</sup> GO7 11/7/96 letter to Wheeler describing conditions for future participation in a State coho recovery program.

<sup>3</sup> GO7 proposed MOU.

<sup>4</sup> GO7 2/25/98 terms for participation in the WPRC.